March 30 - April 5, 2001
The Terra spacecraft is operating in Nominal Mode. All five
instruments are functioning well in Science Mode. The data
acquisition for the month of March was at a 99.1 percent rate.

The X-class Coronal Mass Ejection of March 29 (DOY 088) created a
relatively dense and strongly magnetized interplanetary shock wave
which hit the Earth's magnetosphere on March 31 (DOY 090). Strong
geomagnetic activity continued into April 1 (DOY 091). During this
geomagnetic storm, the Y-axis Magnetic Torquer Rod saturated while
the Reaction Wheel Assembly (RWA) wheel speed and wheel momentum
increased. RWA-2 maximum speed reached 2214 RPMs (which is the
highest wheel speed observed since Terra's launch). Solid State Star
Tracker (SSST) background noise was much higher than normal, causing
an attitude error of 23 arc seconds during the geomagnetic storm.

Due to the increased solar activity, the drag make-up maneuver was
moved up a week to April 5 and was successfully conducted.

The Terra Command and Data Handling (CDH) subsystem continues to
operate nominally. A routine Master Oscillator frequency adjust was
performed on April 5 (DOY 095).

Two MDA2BITE failures (High Gain Antenna Motor Drive Assembly upsets)
occurred during this reporting period with no resultant data loss.

An unrecoverable loss of MISR data occurred on April 2 (DOY 092) due
to a command misconfiguration within the EOS Operations Center (EOC).
The MISR Solid State Recorder (SSR) buffer was disabled on DOY 092 at
19:20:34z, and was subsequently re-enabled at 19:22:17z. Lockup data
were also lost. A total of 1,491,309 CADUs were lost. Corrective
action has been taken on this problem so that it does not happen
again.

ISSUES / ANOMALIES:
Electrical Power Subsystem (EPS) engineering personnel noticed
through trending analysis that the battery discharge current spiked
to within two counts of a yellow limit on March 26 (DOY 085). No
obvious spikes from the reaction wheels or instruments were seen.
This is under investigation.

PLANS:

Flight Ops will support the MODIS Field Campaign from April 4-7.
Flight Ops will support the MISR Field Campaign from April 4-6.
There will be a CERES Lunar Scanning maneuver on April 8.
The new MISR Flight Software upload is scheduled for May 22.